

Prevalence of behavioral risk factors for obesity in children in Kazakhstan

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Background

The global prevalence of children obesity has been the cause of serious concern for the international community due to the gravity of consequences for physical and psycho-social health [1]. In Kazakhstan, too, the number of overweight and obese children has been on the rise [2,3]. A sedentary lifestyle, along with excessive calorie intake with food, has been a significant contributing factor [4-7]. Important role in the development of obesity is also played by overeating caused by various psychological issues, negative emotions, and other behavioral factors [7].

Purpose

To identify the prevalence among the schoolchildren in Kazakhstan of such behavioral factors contributing to obesity as screen time, combining eating with watching a TV/playing on a computer etc., and emotional eating.

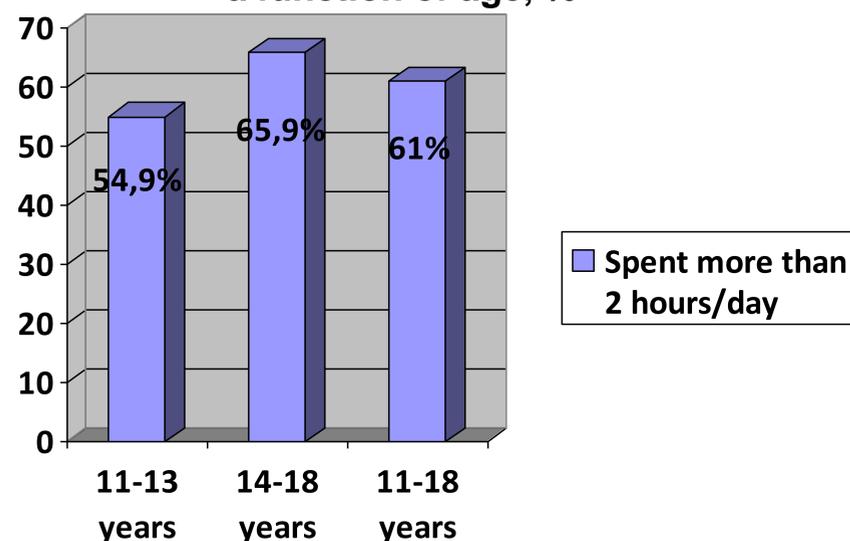
Materials and methods

A cross section study was carried out involving schoolchildren aged 11-18 from five oblasts and two large cities (Almaty and Astana). Every region thus was represented by 200 pupils, a total of 1,400 interviews. To form a selection of respondents, the cluster systematic sample design was selected, as follows: the “region” strata (south, north, west, east, and center), and the “city-village” strata.

Results and discussion

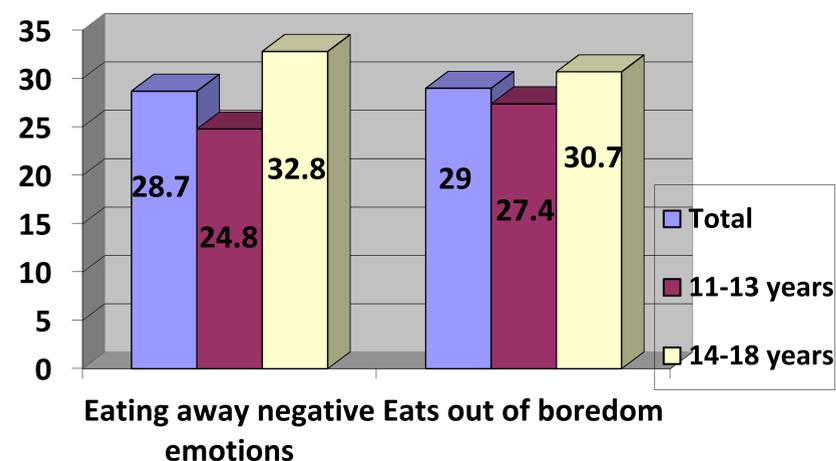
As they grow, the number of children who like to spend time in front of a TV and/or gaming on a computer/tablet/smartphone etc. and spend more than two hours a day doing so, increases as a general rule. In doing so, the older age group find it more interesting to spend time gaming rather than watching TV—59.3 percent vs. 46.3 percent. Two and more hours a day, spent in a sedentary position on top of the studies at school, robs the kids of the time they could have spent for physical activities[8], resulting in an insufficient physical activity among the great numbers of Kazakhstani schoolchildren.

Time spent by Kazakhstani school children in front of a TV and/or gaming on gadgets, a function of age, %



When asked if they eat while watching TV/smartphone/computer or listen to the radio (one of the factors contributing to the development of obesity because such eating behavior may provoke overeating), 46 percent of the interviewed children answered positively—43.1 percent in the younger age group (11-13 years) and 49 percent in the older age group.

Propensity for emotional eating among Kazakhstani schoolchildren, %



“Anxiety eating” after an argument with friends, a poor grade at school, or a failure at an activity, is a rather common occurrence among the schoolchildren. Almost one in every three (28.7%) children has admitted to doing so, and the proportion is higher in the older age group (14-18 years). A desire to “eat away” boredom/loneliness has been experienced by almost a third of the interviewees (29%), and again the proportion is higher in the older age group.

Conclusion

The behavioral risk factors of obesity are found in one in four Kazakhstani schoolchildren aged 11-13 and almost a third of children aged between 14 and 18. Moreover, half of high school students (49%) eat while watching TV/smartphone/computer or listening to the radio etc. Time spent in front of a TV or gaming on gadgets contributes to a sedentary lifestyle. Therefore, the bad habits associated with eating behavior and a sedentary lifestyle start forming in early childhood. In this regard, as a measure to prevent childhood obesity, attention must be paid to the children’s eating behavior and their leisure time beginning at an early age, so that corrective measures can be introduced in a timely manner. Since secondary school is an important part of the children’s life, education forming correct eating behavior and good habits of maintaining physical activity need to begin from the very first year of school.

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